

## **Renton IDDE Public Education and Incident Tracking Report**

(August 18, 2011)

### IDDE Program Highlights:

The City of Renton's Illicit Discharge Detection and Elimination (IDDE) program highlights include:

- Public outreach and education program.
- Codes and standards that address illicit discharges and civil infractions.
- Stormwater page on the City's website.
- Storm drainage system map continually updated with new facilities or corrected for inconsistencies based on field verification.
- 24-hour hotline (425-430-7400), that allows citizens to call in with surface water complaints including illicit discharges and other surface water related issues.
- Staff training on IDDE problems and how to identify and resolve the problems.
- Outfall screening program.

### IDDE Program Education Components:

The City of Renton maintains an active public education and outreach program with a variety of approaches to inform residents, businesses, and developers about ways to prevent stormwater pollution. The program has been developed locally with input from regional organizations such as the Stormwater Outreach for Regional Municipalities (STORM) group, King County, and Department of Ecology. The goal of the education program is to educate the public on IDDE and how public actions affect the downstream conditions, and to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.

### **Description of Renton Education Programs that Reduce Illicit Discharges**

Storm Drain Marking: In 2010 the Surface Water Utility began a volunteer storm drain marker program. The intent is to educate citizens about how the storm water system functions, and how people's understanding and behaviors are essential to preventing pollutant materials from entering the storm drains, and ultimately into stream, river, lake and sound waters. Through this program, City staff coordinates volunteer groups to install markers with the 'Puget Sound Starts Here' (PSSH) logo on drain inlets. STORM's goal is to use social marketing to hopefully influence behavior that will result in improving water quality in the Puget Sound basin. The

campaign has three focus areas: [1] managing pet waste, [2] vehicle maintenance (eliminating drips), and [3] yard care (minimizing pesticides and herbicides). The campaign includes TV and radio spots to get the message out. [Target Audience: General Public, Homeowners]

FLYER – 10 Things You Can Do To Prevent Stormwater Pollution: The storm drain marker volunteer groups also distribute educational flyers to residents and businesses within the volunteer project area. The flyers provide information on changing behaviors and practices to protect storm water quality and they reinforce the storm drain marker message, “Only Rain Down the Drain”. The flyers feature an image of the storm drain markers, which helps residents make the connection between the flyer content and the markers installed in their neighborhood. The flyer also reflects the PSSH message that individuals can make a difference by making small changes to their daily behaviors. It describes 10 things that individuals can do to prevent stormwater pollution, including categories of car maintenance, pet waste management, and yard care. The flyer is also on the City’s website. [Target Audience: General Public, Homeowners]

Press Release: A March 25, 2010, press release was carried by the Renton Reporter that informed readers about Renton’s storm drain marker volunteer program. The article included educational information about how people’s behaviors are essential to preventing pollutants from entering the region’s waterways, and provided pollution prevention tips.

Public Events: The City holds an event called Renton River Days every year whereby residents receive information from City employees. Information varies yearly and includes brochures and handouts to the public concerning the storm drain marker volunteer program, aquifer protection program, hazardous waste management program, integrated pest management program, catch basin inserts for car washes, and salmon recovery efforts in the City. [Target Audience: General Public]

Natural Yard Care: Through 2009 the City’s natural yard care program targeted two neighborhoods each year where City staff conducted five workshops per neighborhood. This program targets alternative lawn care practices with emphasis on reducing or eliminating pesticides and efficient use of water for gardens. This program will be maintained as outlined in the Solid Waste Section work plan.

Staffing changes in 2009 required taking a new direction with the Natural Yard Care program, incorporating those concepts into the City’s general Natural Yard Care Program. This program included conducting a 2009 Natural Yard Care workshop, open to the general public. Approximately 25 people attended. Concepts emphasized included how to reduce reliance on pesticides and chemical fertilizers through a number of “best practices” for gardening.

Additionally, the workshop focused on backyard composting, and the addition of compost as mulch to the landscape. In 2010, the solid waste program continued holding Special Recycle Events, and hosting Natural Yard Care Workshops. Four Natural Yard Care Workshops held in 2010 are: 'Wildlife Friendly Gardening for Natural Pest Control', 'Natural Lawn Care', 'RainWise Gardening' and 'Choosing the Right Plant'. These workshops had 66 attendees total, and two workshops were filmed and broadcast on the City of Renton website and on Renton's Cable Channel 21. [Target Audience: General Public, Homeowners]

Aquifer Protection: The City of Renton's Aquifer Protection Program contains provisions to protect the aquifer from contaminants by substances that could make our groundwater unfit to drink. This program includes land use restrictions in the Aquifer Protection Area, regulations that govern operating procedures for facilities located in the APA, public education, aquifer monitoring, hazardous waste disposal, pesticide and fertilizer applications, reporting requirements, and emergency response to chemical spills. [Target Audience: General Public, Homeowners, Developers, Businesses]

City Web Page Education: The City's Surface Water Utility, Water Utility and Solid Waste Sections each maintain a web page dedicated to providing water quality information. The web pages also include links to the Department of Ecology, King County, and 'Puget Sound Starts Here' websites. [Target Audience: General Public, Engineers, Contractors, Developers]

Car Wash Kits: The City promotes, through its website, car washing methods that protect water quality. The City provides car wash kits for groups holding charity car wash events. The City also encourages the use of charity car wash fundraiser tickets as a preferred option to holding car wash events. [Target Audience: General Public, Homeowners]

Hazardous Waste Reduction: Past household hazardous waste reduction education programs have included providing hands on hazardous waste reduction workshops to elementary school classes, and workshops to teach residents how to compost yard waste using a backyard compost bin and compost food waste using worm bins. Over 1,000 backyard and worm compost bins have been distributed to City residents through the backyard composting program. [Target Audience: General Public, Homeowners]

## **Evaluation of Three Education Programs that Reduce Illicit Discharges**

The City measured the understanding and adoption of targeted behaviors that influence water quality within three targeted audiences listed below. The resulting measurements serve to direct education and outreach resources more effectively, as well as to evaluate changes in adoption of the targeted behaviors.

### **Target Audience: General Public - Storm Drain Marker Volunteers**

**Subject Area:** Source control BMPs and environmental stewardship actions and opportunities in the areas of pet waste, vehicle maintenance, and landscaping.

**Program Description:** The intent is to educate citizens about the stormwater drainage system, and that people's understanding and behaviors are essential to preventing pollutant materials from entering the drains, and ultimately into stream, river, lake and Puget Sound waters. In 2010, the City initiated a program to educate the general public through a volunteer program to install storm drain markers and (for selected projects) distribute educational flyers to residences in the area of installation. The markers are labeled with the Puget Sound Starts Here (PSSH) logo. The volunteer groups also distribute educational flyers to residents and businesses within the volunteer project area. The flyers provide information on changing behaviors and practices to protect storm water quality and they reinforce the storm drain marker message, "Only Rain Down the Drain". The flyers feature an image of the storm drain markers, which helps residents make the connection between the flyer content and the markers installed in their neighborhood. The flyer also reflects the PSSH message that individuals can make a difference by making small changes to their daily behaviors. It describes 10 things that individuals can do to prevent stormwater pollution, including categories of car maintenance, pet waste management, and yard care.

**Program Measurement:** The effectiveness of the Storm Drain Marker Volunteer program to encourage the targeted audience to adopt behavior changes is measured by surveying the volunteer groups. Surveys were completed by 68 storm drain marker program volunteers. The volunteers were given a pre-project survey at the start of the project and before they received educational information regarding the project. The volunteer project managers administered the survey and also presented educational information about the project including instruction on installing the storm drain markers. At the end of the project the volunteers completed a post-project survey.

The pre- and post-project surveys were evaluated. Comparing pre- and post-project survey responses, there was an improvement understanding about behaviors that influence water

quality. The post-project survey also asked volunteers what behaviors they will be adopting or continuing. All those surveyed (except one) marked at least one behavior they will adopt. The totals for each marked adopted behavior are:

- 49 Use a commercial car wash and have car fluid leaks repaired.
- 39 Use fertilizers and pesticides sparingly, or just use compost.
- 38 Pickup dog poop, bag it and place it in the trash.
- 45 Use natural cleaning products, including detergents that do not contain phosphorus. For other cleaning needs, avoid products that contain “Poison” or “Danger” on the label.

The City of Renton’s Storm Drain Marker program is successful for the following reasons:

- Volunteers increased their understanding of the stormwater drainage system and behaviors and practices that protect storm water quality.
- Citizen volunteers developed an increased understanding about how the storm water system functions, and how a person’s understanding and behaviors are essential to preventing pollutant materials from entering the storm drains, and ultimately into stream, river, lake and Puget Sound waters.
- Volunteers stated they will adopt specific behaviors that can help reduce the amount of pollution carried into streams, lakes and Puget Sound.
- Volunteer project managers reported that volunteers had many positive interactions conveying the storm drain marker message to residences in the neighborhoods where they were installing storm drain markers and distributing educational flyers. As an example of typical interactions, see Appendix – Letter from Storm Drain Marker Volunteer, Lonnie King.
- To date, 1,607 markers have been installed and 3,850 educational flyers have been distributed.

**Target Audience: General Public - Natural Yard Care Workshops**

**Subject Area:** To increase residents’ knowledge of “best practices” for managing their yards with techniques that minimize generation and transport of pollutants to natural waters.

**Program Description:** Renton’s Natural Yard Care program targets alternative yard care practices with emphasis on reducing or eliminating pesticides/herbicides and chemical fertilizers, and efficient use of water for gardens. The 2010 program workshops were designed to teach Renton citizens King County’s designated “best practices” for landscape management

through a sequence of four free, subject-specific workshops offered from mid-September to early November.

**Program Measurement:** Each of the four Natural Yard Care workshops was individually evaluated through a pre- and post-workshop survey. The pre-workshop surveys measured attendees' existing knowledge and practice of specific natural yard care techniques. Following each workshop, respondents were asked to consider how often they would practice specific techniques in the future. Individuals who wished to win free natural yard care prizes were asked to complete an additional Natural Yard Care Pledge form.

The City of Renton's 2010 Natural Yard Care program was successful for the following reasons:

- All four workshop presenters addressed King County's Five Steps to Natural Yard Care through unique content material. This four-workshop series was designed to teach the public about King County's basic steps to practice natural yard care. Each of the four presenters covered at least three of these principles while offering their own expertise and personal touch to make each workshop unique and interesting.
- Overall workshop attendance was high. In 2009 the City of Renton hosted one Natural Yard Care workshop that was attended by twenty-five people. This year a total of sixty-six Renton residents participated in the Natural Yard Care program, with many participants attending more than one workshop

**Target Audience:** **Businesses - Aquifer Protection Program**

**Subject Area:** BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps, and other hazardous materials.

**Program Description:** The Aquifer Protection Program provides water quality and conservation education through business site inspections and by providing information on the Water Utility web page.

**Program Measurement:** The table below shows the documentation process for measurement understanding within the Aquifer Protection Program. The program is continuing to be successful in providing water quality information as evidenced by all businesses within the Aquifer Protection Area are in compliance.

City of Renton Aquifer Protection Program		
<b>Documentation of Education and Outreach Activities</b>	Approximately 66 businesses, including government agencies and schools, are currently operating under the Aquifer Protection Ordinance initiated in 1992. Training information and material including brochures are provided to new businesses. Each employer in the program is responsible to provide annual employee training and keep hazardous material disposal records.	There were no new businesses operating within the Aquifer Protection Area in 2008. In 2009, there were 35 new businesses operating within the Aquifer Protection Area, Zone 1 and 87 businesses within Zone 2. There were no new businesses added to the Aquifer Protection Area in 2010.
<b>Knowledge and Awareness</b>	Under this program, businesses are suggested to be annually inspected. As part of this process, the inspector fills out a Facility Code Compliance Survey.	This document provides the inspector specific information on terms like current hazardous materials inventory statement and numbers of spills reported by calling 911 among others.
<b>Behavior Change</b>	Under this program, annual inspections are expected to observe changes. (After inspection, businesses are provided a one year operating permit.)	All businesses within the Aquifer Protection Area are in compliance.

## **Tracking IDDE Incidents**

### Hotline:

The City has a 24-hour hotline (425-430-7400), that allows citizens to contact the City with surface water complaints including illicit discharges and other surface water related issues. Incidents reported to this number will initiate a response from the Public Works Maintenance Division, and/or the Fire Department if the spill material is hazardous. Calls received after hours are routed through the police department (425-430-7500). The City web page has been updated to add the 24-hour hotline information encouraging citizens to report illegal discharges or illicit dumping to protect water quality. The web page directs reporters of spills consisting of hazardous materials to contact 911.

### Tracking IDDE Incidents:

The City tracks identified IDDE incidents. The City is also implementing an improved asset management database that will log incident responses with work orders that can access GIS storm water assets. Information tracked includes: incident location, watershed sub-basin description, type of spill, ERTS number (if required), correspondence, whether it is in the aquifer protection area, whether it is an illicit discharge or illicit connection, and if the report came through the hotline.

### Tracked Incidents:

#### 2009:

- Number of hotline calls received: 10
- Number of follow-up actions taken in response to calls: 10
- Number of illicit discharges identified: 10
- Number of illicit connection inspections: 2

#### 2010:

- Number of hotline calls received: 12
- Number of follow-up actions taken in response to calls: 12
- Number of illicit discharges identified: 22
- Number of illicit connection inspections: 0

#### 2011 (through July):

- Number of hotline calls received: 7
- Number of follow-up actions taken in response to calls: 7
- Number of illicit discharges identified: 12
- Number of illicit connection inspections: 0



IDDE Spill Response Manual:

The City has developed IDDE Spill Response Standard Operating manual. This manual provides City staff with standard operating procedures for responding to spills within the City that threaten the storm drain system. It includes procedures for tracing the source of an illicit discharge as well as actions that City staff will take to comply with reporting requirements of the Department of Ecology's Western Washington Phase II Municipal Stormwater Permit (Condition G3).

## **Appendix – Letter from Storm Drain Marker Volunteer, Lonnie King**

March 3, 2010

City of Renton  
1055 S. Grady Way  
Renton, WA 90857

RE: Eagle Scout Project – Alejandro (AJ) Lim

To Whom It May Concern:

As a member of the Benson Hill Ward of the Church of Jesus Christ of Later Day Saints, Deacons Quorum Advisor, and Assistant Scoutmaster for Troop 415 which is also organized out of the Benson Hill Ward I was asked by AJ Lim to help with his Eagle Scout Project. I readily accepted and have a great interest in knowing what his project would be. As he explained the physical part of the project he also explained the reasons and the benefits to our environment. He explained why the storm drain warnings were essential to educate the community on what should go in the drains, where the run off goes, and how it affects the surrounding wildlife. I thought this was an excellent idea of a project.

The planning was very thorough and the execution was just as good. We met on Saturday 02/06/10 with a very large group to walk the neighborhood selected and place the storm drain warnings by every storm drain in the area. We broke out into small groups with assigned areas and maps provided with the location of each drain in our area. I was assigned 2 youth and we headed out to our assigned area. One of the youth on the team that I had was already an Eagle Scout.

During the time we spent walking the street and applying the caution stickers to each drain, we were approached by many of the residents in the area who were curious about what we were doing. Ages ranged from very young kids in on bikes who appeared to be about 5 years old up to elderly citizens who stated they had lived in the area for a long time. With each question we explained that it was part of a BSA Eagle Scout Project, why we were doing it, and the benefits of adhering to the caution. I think that most of the people we shared this with walked away with a better understand of what should and should not go into the drains. We were approached by one young man who is a junior at Charles A. Lindbergh High School who asked a lot of questions. He informed us that he was in a Contemporary World Issues Class at the school and that they were required to do 10 hours of community service to get a passing grade. He thought what we were doing was something that the class might be interested in doing as well.

As a side note, some of the drains had a large amount of mud and debris around them. For future projects it might be advantageous for the City to coordinate with the volunteer group to have a street sweeper go by the day before or the morning of the project.

In all, I think this was a great idea for and served all the requirements for an Eagle Scout Project. More importantly, it educated and will continue to educate the community as to the care we need to take with the storm drains, streams, and our environment.

Sincerely,

Lonnie G. King  
Assistant Scoutmaster  
Troop 415